New Rcom Pro 20 USER'S MANUAL

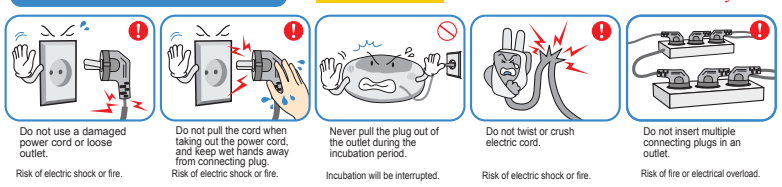
PX-20D, PX-20DUSB(Professional)

Rcom Digital Incubator www.R-com.co.kr

1. Safety Cautions

Electrical hazards

CAUTION Be careful the details below when you use.



Do not use a damaged power cord or loose outlet. — Risk of electric shock or fire.

Do not pull the cord when taking out the power cord, and keep wet hands away from connecting plug. — Risk of electric shock or fire.

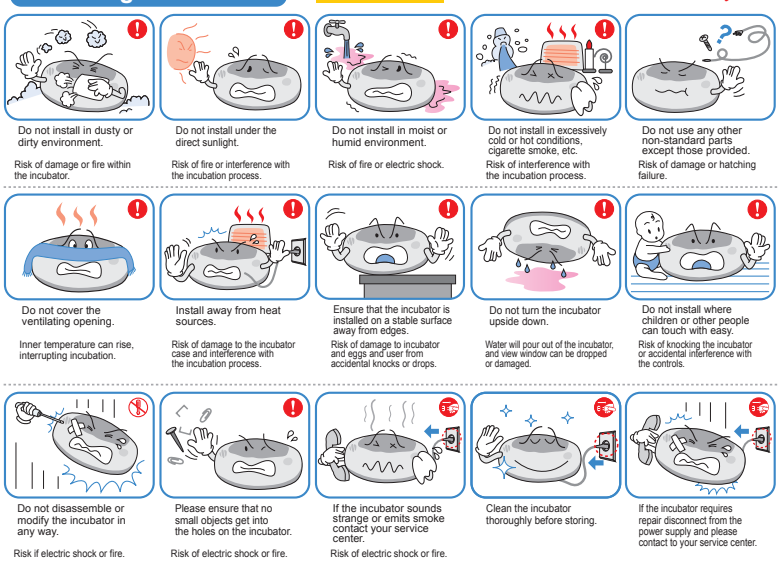
Never pull the plug out of the outlet during the incubation period. — Incubation will be interrupted.

Do not twist or crush electric cord. — Risk of electric shock or fire.

Do not insert multiple connecting plugs in an outlet. — Risk of fire or electrical overload.

Setting Cautions

CAUTION Be careful the details below when you use.



Do not install in dusty or dirty environment. — Risk of damage or fire within the incubator.

Do not install under the direct sunlight. — Risk of fire or interference with the incubation process.

Do not install in moist or humid environment. — Risk of fire or electric shock.

Do not install in excessively cold or hot conditions, cigarette smoke, etc. — Risk of interference with the incubation process.

Do not use any other non-standard parts except those provided. — Risk of damage or hatching failure.

Do not cover the ventilating opening. — Inner temperature can rise, interrupting incubation.

Install away from heat sources. — Risk of damage to the incubator case and interference with the incubation process.

Ensure that the incubator is installed on a stable surface away from edges. — Risk of damage to incubator and eggs and user from accidental knocks or drops.

Do not turn the incubator upside down. — Water will pour out of the incubator, and view window can be dropped or damaged.

Do not install where children or other people can touch with easy. — Risk of knocking the incubator or accidental interference with the controls.

Do not disassemble or modify the incubator in any way. — Risk if electric shock or fire.

Please ensure that no small objects get into the holes on the incubator. — Risk of electric shock or fire.

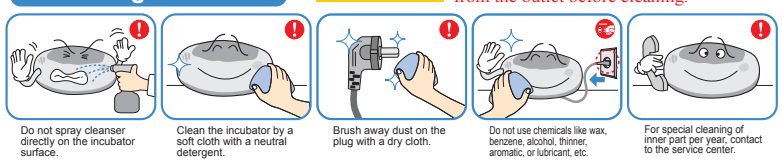
If the incubator sounds strange or emits smoke contact your service center. — Risk of electric shock or fire.

Clean the incubator thoroughly before storing.

If the incubator requires repair disconnect from the power supply and please contact to your service center.

Cleaning Cautions

CAUTION Be sure to disconnect the electric cord from the outlet before cleaning.



Do not spray cleanser directly on the incubator surface.

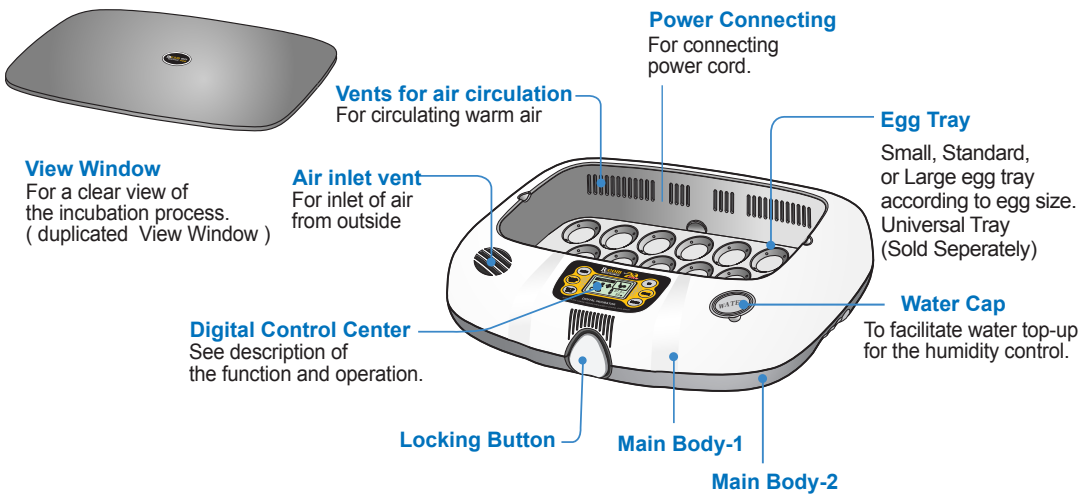
Clean the incubator by a soft cloth with a neutral detergent.

Brush away dust on the plug with a dry cloth.

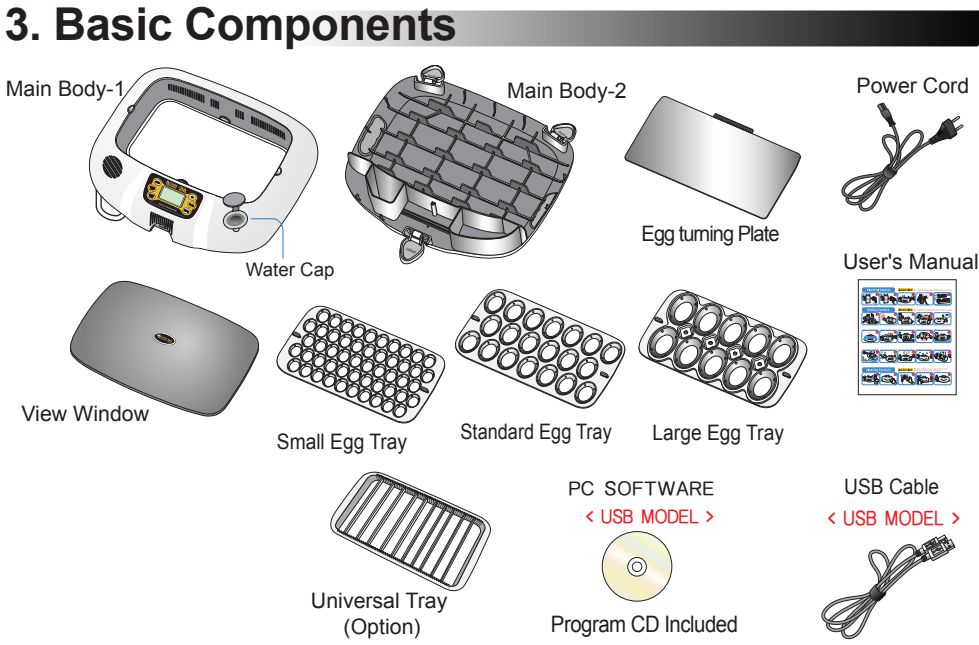
Do not use chemicals like wax, benzene, alcohol, thinner, aromatic, or lubricant, etc.

For special cleaning of inner part per year, contact to the service center.

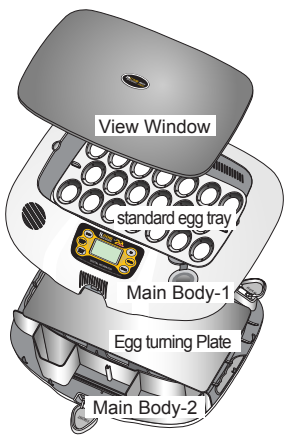
2. Identification of Parts

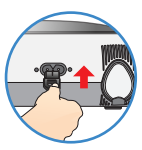

Power Connecting
For connecting power cord.
Vents for air circulation
For circulating warm air
Egg Tray
Small, Standard, or Large egg tray according to egg size. Universal Tray (Sold Seperately)
View Window
For a clear view of the incubation process. (duplicated View Window)
Air inlet vent
For inlet of air from outside
Water Cap
To facilitate water top-up for the humidity control.
Digital Control Center
See description of the function and operation.
Locking Button
Main Body-1
Main Body-2

3. Basic Components



4. How to Assemble



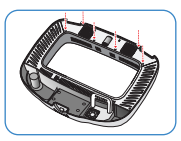


Insert the power cord in the socket at the back of the main body.

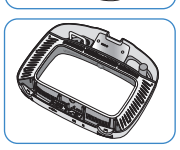
Lock the three locking buttons at the front and rear of the incubator.

5. How to Replace Fuse

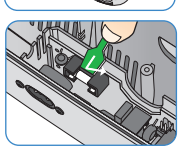
▶ When the machine failed to power on even if you plugged in, remove the fixing piece like the picture by screwdriver.



▶ You can find assembled PCB when open the cover. Remove faulty fuse with screwdriver.

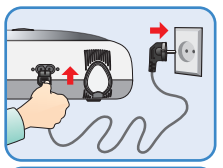


▶ Replace with new fuse. (250V 2.0A Ø5*20mm)



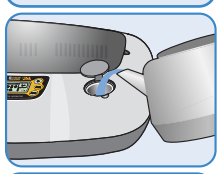
6. Before use

▶ Insert the electric cord in the connecting socket at the back of the Main body and put the power cord into the outlet. The display will come on.



Tip There can be some odor the first time you use the incubator, that is normal.

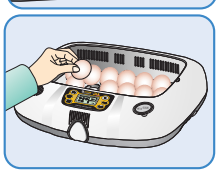
▶ Open the watercap and fill the hole with clean water. And, refill water after 5 min. The styrofoam ball floats on and blocks the hole when full. (Humidity goes down temporarily, in case you refill water under incubation period.)



⚠ You should stop to fill in the water as soon as the Styrofoam ball floats on. The ball will block the hole when full. After filling up with water, never shake or turn over the main body of the incubator.

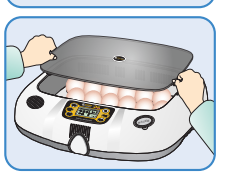
Tip Check the water level every three days and refill fully on incubation period. The light for water top-up can remain for a while after you filled up.

▶ Place your eggs and cover the view window.



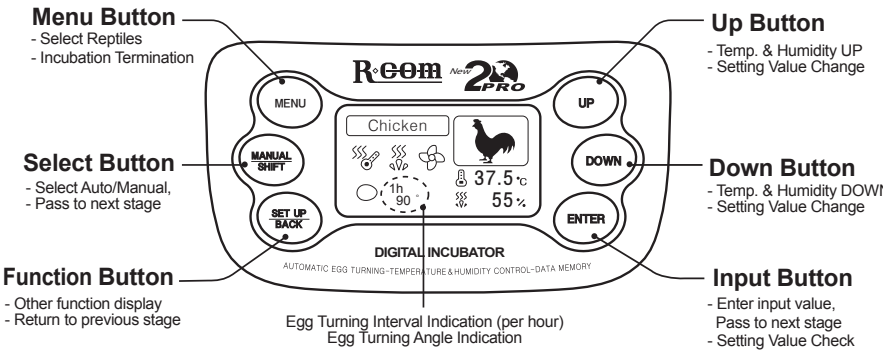
⚠ Be careful to close the view window completely; if not, the temperature will fail to go up.

Tip The egg to incubate must be a fertilized egg.



⚠ You can turn off humidification function when you don't fill water with your incubation or when you need low humidity incubation under 30%. (Water supplement alarm will turn off with this function. Refer to "How to turn OFF humidification function.")

7. Operation Part



8. Display Part Explanation

	ICON	NAME AND FUNCTION
1	Chicken	Species of Birds
2		Heater Stop Display Heater Operation Display
3		Humidification Stop Display Humidification Operation Display
4		Power Failure Notification
5		Egg Turning Indication Manual Egg Turning Stop Indication Automatic Egg Turning Stop Indication Incubation Termination
6	< USB MODEL >	PC Connecting Alarm

	ICON	NAME AND FUNCTION
7	Bird Icon Display	**Choose a kind** * Chicken ① * Duck ② * Quail ③ * Pheasant ④ * Peafowl ⑤ * Goose ⑥ * wildgoose ⑦ * G-Pheasant ⑧ * Turkey ⑨ * Others Birds ⑩
8		FAN Operation Display
9	37.5℃	Current Temperature Display Temperature Abnormal Display
10	40 % OFF	Current Humidity Display Humidification function OFF
11		Water Supplement Humidity Abnormal

9. SET UP(Other Functions)

T.CAL Temperature Calibration		WARNING Fatal Damage with Incorrect Calibration! Be sure to read CAUTIONS. (Calibration available after 5 Sec.) Temp. calibration limits : -9.9℃ ~ +9.9℃
H.CAL Humidity Calibration		WARNING Fatal Damage with Incorrect Calibration! Be sure to read CAUTIONS. (Calibration available after 5 Sec.) Humidity calibration limits : -20% ~ +20%
ALARM Abnomal High Alarm	High Temp HiErr	Alarm sounds when incubator temp. is higher than setting value because of room temp. change or heating system disorder * Setting Range : 0.0℃~5.0℃ (Default Setting : 2.0℃)
ALARM Abnomal low Alarm	Low Temp LoErr	Alarm sounds when incubator temp. is lower than setting value because of room temp. change or heating system disorder * Setting Range : 0.0℃~5.0℃ (Default Setting : -3.0℃)
Unit		Selecting Centigrade (°C) and Fahrenheit (°F) * Default Value : Centigrade (°C)
Light		LCD Backlight management setting * Always On : Always BackLight On * Always Off : Always BackLight Off * Event On : 20 Sec. ON with Key input * Default Value : Always On
Sound		ON/OFF Setting for Melody, other alarms * Default Value : ON
ALL RESET Factory setting	**ALL RESET**	It returns to factory setting when you change the initial setting at discretion.
Info		Basic information of Incubator (versoin Indication)

10. Easy Function Operation

REFER TO "HOW TO START INCUBATION" FOR MORE INFORMATION.

Automatic Mode Incubation	MANUAL ▶ Select the Species of Bird ▶ ENTER 2 Sec.
Other(Manual) Mode Incubation	MENU ▶ UP/DOWN Select the Species of Bird ▶ ENTER ▶ Temp. Setting, Humid. Setting, Egg Turning Angle Setting, Egg Turning Interval Setting(Incubation day) ▶ ENTER
How to change Setting under Incubation (MANUAL)	MANUAL — Once: Temp. Setting; Four times: Humidity Setting; Seven times: Egg Turning Angle Setting; Nine times: Egg Turning Interval Setting ▶ UP/DOWN ▶ ENTER
Incubation Termination	Screen on Incubation — MENU ▶ System finish Are you sure? — UP/DOWN Select YES ▶ ENTER
Incubator Initialization (Factory Setting)	SET UP BACK ▶ UP/DOWN "All Reset" ▶ ENTER ▶ ENTER
℃ ↔ °F How to change	SET UP BACK ▶ UP/DOWN ℃ °F ▶ ENTER ▶ UP/DOWN ℃↔℉ ▶ ENTER
How to turn off Humidification Function (In case of low humidity incubation)	Screen on Incubation — MANUAL 4 times ▶ DOWN UNDER 30% ▶ "OFF" ▶ ENTER

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Digital Incubator

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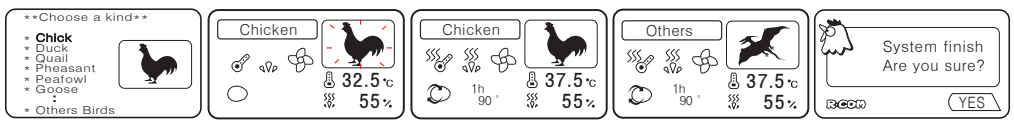
11. How to start incubation by Auto or Manual

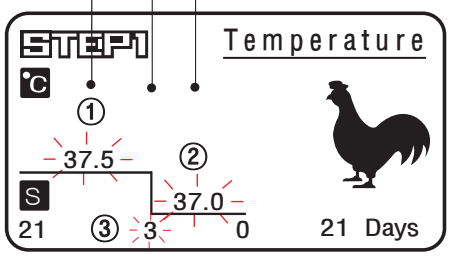


MANU screen | basic screen before starting incubation | Screen showing incubation is in progress | Screen showing incubation of other birds is in progress | Screen showing completion of incubation

- Auto incubation
  - MANUAL button (Selection of birds)
  - ENTER button (Auto incubation starts after two seconds)
- OTHER (MANU) incubation (Other birds)
  - MENU button
  - UP/DOWN button (Selection of birds)
  - ENTER button
    - Temperature setting
      - ① Setting of temperature of early and middle stages of incubation
      - ② Setting of temperature of final stage of incubation.
      - ③ Setting of date of temperature change in the final stage of incubation.
    - Humidity setting
      - ④ Setting of humidity of early and middle stages of incubation.
      - ⑤ Setting of humidity of final stage of incubation
      - ⑥ Setting of date of humidity change in the final stage of incubation.
    - Egg turning angle setting
      - ⑦ Setting of egg rotation angle of early and middle stages of incubation.
      - ⑧ Setting of date of egg turning angle change in the final stage of incubation.
    - Egg turning interval setting
      - ⑨ Setting of egg turning interval of early and middle stages of incubation.
      - ⑩ Setting of incubation date.
    - Incubation starts.
- Incubation termination (under incubation)
  - MENU button
  - UP/DOWN button ("yes" selection)
  - ENTER button (incubation termination)

▶ In auto incubation, user only needs to select type of birds as incubation environments such as optimum temperature, humidity, egg turning, etc. are automatically controlled.
User can change incubation environments if need arises.

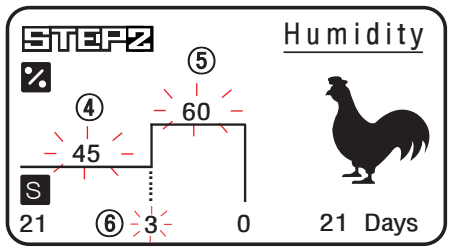
① Temperature of early and middle stages of incubation.
③ Date of change of temperature of final stage of incubation.
② Temperature of final stage of incubation.



[Temperature setting screen]

STEP1 Temperature setting

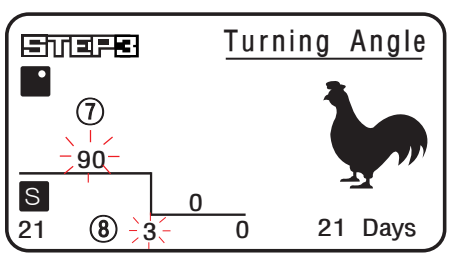
Optimum incubation temperature of general birds at early and middle stages ① is 37.5℃, and the temperature of final stage ②of incubation is better to set at 37℃ three days before the expected date of hatching (D-Day) ③.
User can optionally change the temperature of early, middle, and final stages of incubation.
(Initial settings: ①37.5℃, ②37.0℃,③3days)



[Humidity setting screen]

STEP2 Humidity setting

The optimum humidity depends on type of birds.
However the humidity of final stage⑤
(3 days before incubation)is generally higher than that of early and middle stages ④of incubation.
(Initial settings: ④45%,⑤60%,⑥3days)

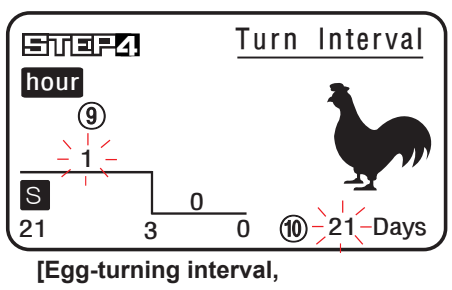


[Egg-turning angle setting screen]

STEP3 Egg-turning angle setting

The egg turning angle showing on LCD screen may be different from the setting angle depending on egg table (based on standard egg table) and size of eggs. In general, the egg turning angle of early and middle stages is 90 ° for chicken, golden pheasant, pheasant. It is better to set higher angle (110 ~180 °) for bigger eggs and wild birds. It is a general practice not to turn eggs (turn angle is 0 °) at final stage of incubation (3 days before expected incubation date).

When "rnd" (random) is set, the egg turning angle is between 75~180 ° at random.
(Egg turning angle: 0 ° ,15 ° ,30 ° ,45 ° · · · · ,150 ° ,165 ° ,180 ° ,rnd)



[Egg-turning interval, Incubation date Setting Screen]

STEP4 Egg turning cycle setting

It is a function to set the interval (time) of egg-turning⑨.
It turns the eggs at the setting angle of early and middle stages⑦ once an hour.
User can optionally set the egg-turning interval⑨ of eggs.
(Initial Setting: ⑨an hour)
"rdm"(Random) setting is for operating at random within the limits from 30min. to 2 hours.
(Egg turning cycle: rnd, 0.5, 1, 1.5, · · · 5, 5.5, 6 hours.)

▶ **Setting of incubation date:** The incubation date of birds on menu screen is a general incubation date. User can input the correct incubation date.(Initial settings: depending on type of birds)

▶ **Auto incubation:**
The optimum incubation environment of the birds on the menu screen is memorized in the micro chip. User can incubate easily using this function.
Press MANUAL button to select birds to incubate in home page and press ENTER key for two seconds.Then the input data are memorized and the incubator starts incubation under optimum environment.

▶ **Other (manual) incubation:**
This function is used to incubate the birds which are not memorized in the incubator.
User can optionally change the incubation environments. (window appears in the order of above graph.)
Press menu button in home page and select "Other birds" with UP/DOWN button and press ENTER key.
Reset temperature, humidity, egg turning, incubation date and press ENTER key again.

▶ **MANUAL button:**
It is used to reset incubation environments during auto or other (Manu) incubation.
If MANUAL button is pressed on incubation in progress screen, temperature window blinks.
When changing temperature, reset the temperature with UP/DOWN button and press ENTER key to store.
The screen converts to incubation in progress screen.
If user does not want to change the incubation environments, press MANUAL button to move to the next stage.
After five seconds, it converts to incubation screen. (Window appears in the above graph sequence)

▶ Press MANUAL button several times(①~⑩)until the required mode appears on the screen.
It can be also used to confirm the present environment of incubation during incubation.

12. How to turn off Humidification Function

▶ You can turn off humidification function when you don't fill water with your incubation or when you need low humidity incubation under 30%.

▶ Press MANUAL button four times and press DOWN button in humidity setting until OFF is shown, then press ENTER button. (OFF appears when humidity is less than 30%)

13. How to Terminate Incubation

▶ If you press MENU button on incubation period, **" System finish Are you sure ? "** message will show.

▶ Select YES with UP / DOWN button, and then ENTER button.

If you leave the incubator alone without drying water after high humidity incubation, the water inside of incubator condense and make waterdrop at the LCD display or control device. For preventing this problem, disassemble main body 1 and 2, and dry completely before storing. (You can dry the incubator as operating the incubator for about 1 to 2 hours after removing water.)

14. Incubator Initialization

(ALL RESET) For returning to the factory setting

▶ If you want to return to the initial set values, please follow this sequence.

1) Select All Reset at SET UP mode
2) Press Enter
3) Press OK

15. How to Clean after Hatching

▶ Pull out the electric cord from connecting jack, and also take out the plug from the outlet.

▶ Unlock three of locking buttons at the front and back of incubator, and disassemble the incubator.

▶ Disassemble the incubator. The bottom part shall be thoroughly cleaned with water and dried.The upper parts shall be naturally dried in order to remove moisture inside of the incubator.
Assemble the parts in the reverse order of disassembly.

▶ In case of you operate humidification function, there can be moss on the humidification heating part ⓐ. It doesn't effect in function, and you just need to clean it with soft brush after hatching.

⚠ Do not inflict an impact to the humidification heating part ⓐ. Or, it will be damaged.

⚠ Do not clean the product with organic solvents such as benzene and paint thinner.

16. How to calibrate Temp.(Humidity)

⚠ CAUTIONS This calibration function is to reset the temperature and humidity of the incubator to correct values using your thermometer and hygrometer. It is better not to calibrate the incubator as normal thermometer and hygrometer are not reliable than incubator factory setting.

Tip How to calibrate : Place the thermometer or hygrometer at 5 cm above the bottom of the tray and operate it for one hour before starting its calibration.

* Be sure to check ⚠ CAUTIONS before you calibrate temperature or humidity.

▶ After start incubation, press SET UP button and go to T.CAL on incubation process.
If you press ENTER here ' WARNING ' will show on LCD. It goes to calibration Mode automatically after 5 sec. Then, calibrate the temperature with UP/ DOWN button and press ENTER button for saving.
(How to calibrate Humidity : It is same with the way calibrating temperature on H.CAL)

17. Specification

Power	AC 100V~120V, 50/60Hz / AC 220V~240V, 50/60Hz
Temp. limits	20℃ ~ 42℃(68°F~107.6°F)
Temp. Accuracy	± 0.5℃
Working Temperature	Ideal : 20℃ ~ 25℃ Min. 15℃ / Max. 30℃
Humidity Limits	30% ~ 70% (It can be changed according to the conditions)
Humidity Accuracy	± 5%
Power Consumption	Average 48W
Capacity	10~52 (Eggs Available at once)
Net Weight	4.5 Kg
Size	(W)500×(L)410×(H)160 (mm)
Fuse Standard	250V 2.0A (Ø5×20mm)

Visit our web site (www.r-com.co.kr) for more information on our products and other informations.
Update of information : download the necessary information from resource room in Rcom homepage.

R-com digital incubator is designed for easy and convenient use. For the improvement of the functions of the incubator, design, how to use, etc. can be changed without notice in advance.

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